I CLAIM:

1. An alignment layer for a liquid crystal device, comprising:

an epoxy; and

a reactive mesogen mixed with said epoxy.

2. The alignment layer of claim 1, wherein said composition is polyimide free.

3. The alignment layer of claim 1, wherein the epoxy is UV curable.

4. The alignment layer of claim 1, further comprising a photo-initiator mixed with said epoxy.

5. The alignment layer of claim 4, further comprising a thermal-inhibitor mixed with said epoxy, reactive mesogen and photo-initiator.

6. The composition of claim 1, wherein said epoxy comprises between 10% to 80% by weight of said alignment layer.

7. A method for fabricating an alignment layer for a liquid crystal device, comprising:

a) dissolving an epoxy and a reactive mesogen (RM) in a solvent to form an isotropic mixture;

b) forming a layer of said mixture on a substrate;

c) removing solvent from the layer;

d) polymerizing the the layer; and

e) aligning the molecules in the layer.

8. The method of claim 7, wherein the molecules in the layer are aligned by rubbing the layer.

9. The method of claim 7, wherein the molecules in the layer are photo-polymerized by UV curing.

10. The method of claim 7, wherein the substrate is a surface of a liquid crystal cell.

11. The method of claim 7, wherein the substrate is a polymerized liquid crystal layer.

12. The method of claim 7, wherein the mixture formed in step a) further comprises a photo-initiator.

13. The method of claim 7, wherein the solvent is a ketone.

14. The method of claim 13, wherein said solvent is cyclohexanone.

15. A method for fabricating an alignment layer for a liquid crystal device, comprising:

a) dissolving a mixture comprising an epoxy and a reactive mesogen (RM) in a solvent to form an epoxy/RM mixture;

b) forming a layer of said epoxy/RM mixture to form a layer on the substrate;

c) removing solvent from the layer; and

d) polymerizing and aligning the molecules in the layer by photo-alignment.

16. A method for aligning a liquid crystal layer comprising:

casting a liquid crystal composition on an alignment layer, said alignment layer comprising:

a UV curable epoxy; and

a reactive mesogen; and

UV curing the layer.

17. The method of claim 16, wherein said alignment layer is polyimide-free.

18. The method of claim 16, wherein said alignment layer comprises a high pretilt layer, said high pretilt layer being coated on a layer comprising the epoxy and reactive mesogen, said liquid crystal composition being cast on the high pretilt layer.

19. A method for fabricating an LCD compensator comprising:

forming a first alignment layer on a substrate, said alignment layer being polyimide-free,

aligning molecules in said first alignment layer to correspond to a desired alignment for the compensator, and

forming a compensator comprising a reactive mesogen on said first alignment layer, said compensator aligned in accordance with the first alignment layer.

20. The method of claim 19, wherein said first alignment layer comprises a mixture of a reactive mesogen and an epoxy.

21. The method of claim 20, wherein said epoxy is UV curable.

22. The method of claim 20, wherein said first alignment layer further comprises:

a photo-initiator; and

a keytone solvent is used to dissolve the reactive mesogen, epoxy and photo-initiator.

23. The method of claim 22, further comprising the steps of casting the first alignment layer and removing the ketone solvent after casting.

24. The method of claim 19, wherein said molecules in said first alignment layer are aligned by:

photo-polymerizing the molecules; and

rubbing the layer to produce the desired alignment.

25. The method of claim 19, wherein said molecules in said first alignment layer are aligned by photo-alignment.

26. The method of claim 19, wherein said compensator further comprises a photo-initiator and a ketone solvent, with said reactive mesogen and photo-initiator dissolved in the ketone solvent prior to formation of the compensator.

27. The method of claim 26, further comprising casting the compensator and removing solvent from the compensator after casting it.

28. The method of claim 19, further comprising photo-polymerizing the compensator after casting it.

29. The method of claim 19, wherein said compensator is an A-plate.

30. The method of claim 29, wherein said compensator further comprises a surfactant.

31. The method of claim 19, further comprising forming a second alignment layer on said first alignment layer, said compensator being formed on said second alignment layer.

32. The method of claim 19, wherein said compensator is an O-plate.

33. The method of claim 32, further comprising forming a high pretilt layer on the first alignment layer, said compensator being formed on said high pretilt layer, and forming said compensator aligned according to the combined alignments of the first alignment layer and the high pretilt layer.

34. A compensator stack, comprising:

a substrate;

a first alignment layer on said substrate; and

a first compensator layer on said first alignment layer;

said substrate comprising a compensator, a liquid crystal cell, glass or plastic, or a combination thereof; and

said first alignment layer comprising at least one polyimide-free alignment layer.

35. The compensator stack of claim 34, further comprising

a second alignment layer on said first compensator layer; and

a second compensator layer on said second alignment layer,

said alignment layer comprising at least one polyimide-free alignment layer.

36. The compensator stack of claim 34, wherein said first compensator layer is an A-plate.

37. The compensator stack of claim 34, wherein said first compensator layer is an O-plate.

38. The compensator stack of claim 37, wherein said alignment layer includes a high pretilt layer on the polyimide-free alignment layer, said high pretilt layer being located between the first compensator and alignment layers.

39. The compensator stack of claim 38, wherein said polyimide-free alignment layer is formed from an epoxy and a reactive mesogen.

40. A method for forming a compensator stack for a liquid crystal device, comprising:

forming a first polyimide-free alignment layer on a substrate;

creating a desired molecular alignment in said first alignment layer; and

forming a compensator layer on said first alignment layer comprising a reactive mesogen, said compensator layer aligned according to the alignment in the first alignment layer,

said substrate comprising a compensator, a liquid crystal cell, a glass or a plastic, or a combination thereof.

41. The method of claim 40, further comprising:

forming a second polyimide-free alignment layer on said first compensator layer;

creating a desired molecular alignment in said second alignment layer; and

forming a second compensator layer on said second alignment layer, said second compensator layer comprising a reactive mesogen aligned according to the alignment in the second alignment layer.

42. The method of claim 40, wherein said second alignment layer comprises a reactive mesogen/epoxy mixture.

43. The method of claim 40, further comprising forming a high pretilt layer on said first alignment layer, with said first compensator layer formed on the high pretilt layer and aligned according to the combined alignments of the first alignment and high pretilt layers.

44. The method of claim 40, wherein said compensator layer is an A-plate.

45. The method of claim 44, wherein said compensator layer further includes a surfactant.

46. The method of claim 40, wherein said compensator layer comprises an O-plate.

47. A liquid crystal cell, comprising:

a liquid crystal layer with opposite sides,

a set of electrodes on opposite respective sides of the liquid crystal layer; and

a polyimide-free alignment layer between at least one of said electrodes and the liquid crystal layer for aligning the liquid crystal layer.

48. The liquid crystal cell of claim 47, wherein said alignment layer comprises an epoxy/reactive mesogen mixture.

49. A liquid crystal display (LCD), comprising:

a liquid crystal cell; and

at least one compensator stack, optically aligned with said liquid crystal cell, said compensator stack comprising:

an alignment layer; and

a first compensator layer on said first alignment layer;

said first alignment layer comprising at least one polyimide-free alignment layer.

50. The LCD of claim 49, wherein said polyimide-free alignment layer comprises a reactive mesogen/UV curable epoxy mixture.

51. A display system, comprising:

an operating system; and

a liquid crystal display (LCD) connected to said operating system to display a characteristic of said operating system, said LCD comprising:

a liquid crystal cell; and

at least one compensator stack, optically aligned with said liquid crystal cell, said compensator stack comprising:

an alignment layer; and

a first compensator layer on said first alignment layer,

said first alignment layer comprising at least one polyimide-free alignment layer.

52. The system of claim 51, wherein said polyimide-free alignment layer comprises a reactive measogen/UV curable epoxy mixture.